S/153/60/003/004/011/040/XX
B020/B054

1) Нанесено иона на колонку, γ	2) Высота зоны сорбированного иона, мм				
	Fe^{3+}	Cu^{2+}	AsO_3^{3-}	AsO_4^{3-}	PO_4^{3-}
50	1,0	1,0	1,5	1,0	2,0
100	2,5	1,5	2,0	2,0	3,0
200	3,5	2,5	2,5	3,0	3,5
300	4,5	3,0	3,0	3,5	4,0
400	5,0	3,5	3,5	4,0	4,5
500	5,5	4,0	4,0	4,5	5,0
600	6,5	4,5	4,5	5,0	7,0
700	7,0	5,0	5,0	5,5	8,0
800	7,5	5,5	5,5	6,0	8,5
900	8,0	6,0	6,0	7,0	9,0
1000	8,5	6,5	6,5	8,0	10,0

Table 1

Legend to Table 1: 1) applied onto the column, 2) height of the zone of the absorbed ion.

S/153/60/003/004/011/040/XX
B020/B054

Таблица 2
TABLE

1) Хроматографирование растворов с постоянными микроколичествами одного иона и переменными другого

2) Нанесено на колонку, γ		3) Соотношение	4) Высота зоны	2) Нанесено на колонку, γ		3) Соотношение	4) Высота зоны
Cu^{2+}	Fe^{3+}	$Cu^{2+} : Fe^{3+}$	Cu^{2+}, мм	Cu^{2+}	Fe^{3+}	$Cu^{2+} : Fe^{3+}$	Cu^{2+}, мм
500	50	1:0,1	4,0	1000	50	1:0,05	6,5
500	200	1:0,4	4,0	1000	200	1:0,2	6,5
500	400	1:0,8	4,0	1000	400	1:0,4	6,5
500	600	1:1,2	4,0	1000	600	1:0,6	6,5
500	800	1:1,6	4,0	1000	800	1:0,8	6,5
500	1000	1:2,0	4,0	1000	1000	1:1,0	6,5

Legend to Table 2: 1) Chromatography of solutions with constant concentration of the one, and varying concentration of the other ion, 2) applied onto the column, 3) ratio, 4) height of the zone.

Card 6/6

TSITOVICH, I.K.

Separation of titanium from manganese by ion exchange chromatography. Zhur.anal.khim. 15 no.4:503-504 Jl-Ag '60. (MIRA 13:9)

1. Kuban Agricultural Institute, Krasnodar.
(Manganese) (Titanium)

TSITOVICH, I.K.

Organic reagents and the concentration of ions by means of ion exchange resins. Trudy kom. anal. khim. 11:411-417 '60.
(MIRA 13:10)

1. Kubanskiy sel'skokhozyaystvennyy institut.
(Chemical tests and reagents) (Ion exchange)

TSITOVICH, I.K.

Microquantitative determination of ions from chromatographic standards on aluminum oxide aluminate. Izv.vys.ucheb.zav.;khim.i khim.tekh. 3 no.4:604-610 '60. (MIRA 13:9)

1. Kubanskiy sel'skokhozyaystvennyy institut, kafedra neorganicheskoy i analiticheskoy khimii.

(Ions) (Chromatographic analysis) (Alumina)

S/075/60/015/004/026/030/XX
B020/B064

AUTHOR: Tsitovich, I. K.

TITLE: Separation of Titanium From Manganese by the Method of Ion Exchange Chromatography

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 4, pp. 503 - 504

TEXT: The author studied the possibility of separating titanium from manganese by ion exchange chromatography from hydrochloric acid solutions with an HCl concentration of 0.1 to 10 N. The distribution coefficients of tetravalent titanium and divalent manganese between the ion exchangers and the hydrochloric acid solutions were determined by the modified method of I. P. Alimarin, T. A. Belyavskaya, and L. A. Bazhanova (Ref. 1). The sorbents were the strongly acid monofunctional cationites KY-2(KU-2) and СБС(SBS), the strongly acid multifunctional cationite КУ-1(KU-1), and the anion exchanger АН-2ф (AN-2F). Table 1 gives the determined distribution coefficients.

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Separation of Titanium From Manganese by the Method of Ion Exchange Chromatography

S/075/60/015/004/026/030/XX
B020/B064

From 0.1 - 1 N hydrochloric acid solutions, titanium is better sorbed than manganese by all cationites. With increasing acidity of the solutions, the sorption of both elements decreases rapidly, however, not to the same extent. Owing to the ratios of the distribution coefficients, it is possible to separate manganese successfully from titanium at 0.5 N HCl, as was experimentally confirmed. Table 2 shows that the separation of titanium from manganese by the method suggested gives satisfactory results, and may be used in quantitative analysis. With the cationite KU-1 it is possible to separate Ti quantitatively from Mn at ratios of Ti:Mn between 1:1000 and 1000:1. Titanium was found to form anion complexes in 8 N and more strongly concentrated hydrochloric acid solutions. There are 2 tables and 10 references: 6 Soviet, 1 Japanese, and 3 US.

ASSOCIATION: Kubanskiy sel'skokhozyaystvennyy institut, Krasnodar (Kuban' Agricultural Institute, Krasnodar)

SUBMITTED: June 22, 1959

Card 2/2

66176

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SOV/20-128-5-30/67

AUTHOR: Tsitovich, I. K.

TITLE: On the State of the Elements in the Middle of the Fourth Period in Hydrochloric Acid Solutions

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 5, pp 970 - 972 (USSR)

ABSTRACT: Ion exchange is widely used for separating metals in the analysis of various ores and alloys. Cation exchange resins are used for separating mixtures of elements of the groups I-IV, anion exchange resins for separating mixtures of the groups V-VIII. Separation of ions which are more closely related with regard to their properties is mainly based on their different inclination towards complex formation. Thus, ion exchange gains importance as a method of investigating the state of elements in acid solutions. This is rendered possible by the absorption of simple metal cations from the solution by active cationite groups; their complex anions are adsorbed by active anionite groups. The investigation mentioned in the title is interesting because ion exchange sorption may differ very much because of the different solidity of chloride complexes even

Card 1/3

On the State of the Elements in the Middle of the Fourth Period in Hydrochloric Acid Solutions

SOV/20-128-5-30/67

in the case of elements closely related to one another (Refs 1-8). In order to solve the problem mentioned in the title, the distribution coefficients of the elements between ion exchange resins and hydrochloric acid solutions were determined with a HCl concentration of 0.1 to 10 n. The elements Cr(III), Mn(II), Fe (III), Co (II), Ni(II), and Cu(II) which are typical complex formers (Ref 9), and Ti (IV) were investigated. The common determination method (Ref 1) was used. The strongly acid, monofunctional cationites KU-2 and SBS, the strongly acid polyfunctional cationite KU-1, and the anion exchange resin AN-2F were used as sorbents. The cationites were put into H-form, the anionites into Cl-form. Table 1 shows the results of the determination of the coefficients mentioned. As is known, the quantity of cations absorbed by cation exchange resin decreases with a decrease of the pH-value of the medium (Ref 12). Sorbability decrease of the elements due to cationites, however, cannot be explained by the pH-change alone; formation of chloride anion- or neutral complexes is also of importance. Table 1 shows that all elements mentioned are sorbed to a considerable degree in the relatively diluted HCl solutions used. Thus, they are

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On the State of the Elements in the Middle of the Fourth Period in Hydrochloric Acid Solutions SOV/20-128-5-30/67

present in solutions as simple cations Ti^{4+}, Mn^{2+}, Fe^{3+}, Co^{2+}, Ni^{2+}, and Cu^{2+}. Ion exchange sorption of the elements decreases quickly with increasing acidity. This is explained by the formation of anion complexes (in addition to concentration increase of hydrogen ions). From 6 n-HCl solution onward Co (II) turns into chloride anions and is sorbed by the anion exchange resin. It is obvious that each of the metals forming chloride anion complexes (Ti, Fe, Co) can be separated in sufficiently concentrated HCl solutions (8 n and more) from chromium, manganese, nickel, and copper by anion exchange resins. There are 1 table, and 12 references, 9 of which are Soviet.

ASSOCIATION: Kubanskiy sel'skokhozyaystvennyy institut (Kuban' Agricultural Institute)

PRESENTED: July 13, 1959, by I. I. Chernyayev, Academician

SUBMITTED: June 10, 1959

Card 3/3

AUTHOR: Tsitovich, I. K.

76-32-3-34/43

TITLE: On the Influence Exerted by Chloro-phenoxy Acetic Acid Upon the Catalase Activity of Carbon (O vliyanii khlorfenoksiuksusnykh kislot na kataluaznuyu aktivnost'uglya)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol 32, Nr 3, pp 71o - 711 (USSR)

ABSTRACT: I. A. Zubovich and N. I. Kobozev investigated the influence exerted by 2,4-dichlorophenoxyacetic acid upon the catalase activity of ionic exchange catalysts, and they found that small doses have an activating effect, whereas larger doses deactivate. In the present paper the influence exerted upon the catalase activity of carbon is investigated. On that occasion 2-methyl,4-chloro-phenoxy acetic acid was also used besides the acid mentioned in the title. The quantity of carbon and that of 3% hydrogen peroxide were kept constant in the determinations and only the concentration of the acids to be investigated varied. From the graphically represented results, follows that both test substances exert a similar influence upon the catalase properties. Up to a certain quantity they are

Card 1/2

On the Influence Exerted by Chloro-phenoxy Acetic Acid Upon the Catalase Activity of Carbon

activating and above that they are deactivating, as was observed earlier. The limit concentration is supposed to lie near 0,01-0,05%. Thus the assumptions set up in this domain were confirmed by this work. It is stated that the accelerating and inhibiting action respectively of the above-mentioned acids on carbon were not as well observed as on ion-active catalysts. There is 1 figure, and 3 references, 3 of which are Soviet.

ASSOCIATION: Kubanskiy sel'skokhozyaystvennyy institut, Krasnodar (Kuban' Institute of Agriculture, Krasnodar)

SUBMITTED: October 18, 1956

TSITOVICH, I.K.

Paper-chromatographic determination of copper traces in agricultural products [with summary in English]. Zhur.anal.khim. 13 no.4: 469-472 Jl-Ag '58. (MIRA 11:11)

1. Kubanskiy sel'skokhozyaystvennyy institut, Krasnodar.
(Copper) (Chromatographic analysis)

AUTHOR: Tsitovich, I.K.

SOV/75-13-4-17/32

TITLE: The Determination of Copper Traces on Agricultural Products by Means of Paper Chromatography (Opredeleniye sledov medi na sel'skokhozyaystvennykh ob"yektakh metodom khromatografii na bumage)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol. 13, Nr 4, pp. 469-472 (USSR)

ABSTRACT: There are some papers dealing with the chromatographic investigation of organic insecti- and fungicides (Refs 1-6). Although there exist a great number of macro methods (Ref 7) no satisfying methods for the determination of small amounts of insecti- and fungicide ions

(Cu^{2+}, Hg^{2+}, Ba^{2+}, Zn^{2+}, AsO_3^{3-}, AsO_4^{3-}, F^-, SiF_6^{2-}, CN^-)

on agricultural products (seeds, fruits, leaves etc.) have been elaborated. Paper chromatography can be made use of for the solution of this problem. The author of the present work investigated the possibility of using paper chromatography for the quantitative determination of traces of copper, as copper

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containing preparations are in great use in agriculture. The following approximation methods which are simple and can be carried out relatively quickly, attract greatest interest of all the methods described in publications for the determination of substances localised on chromatographic paper: a) The direct determination by a comparison of the developed zone with a chromatographic standard. b) The determination on the basis of the relation between the concentration of the component to be determined and the surface of its zone on the chromatogram: $S = a.\log c + b$ (where S denotes the surface of the stain on the chromatogram, c the concentration of the component in the initial solution, a and b the empirical constants). This method (Ref 10) was employed for the quantitative investigation of amino acids. The author of the present paper investigated the connection between the concentration of the ion Cu^{2+} and the width of its zone on the developed ring chromatogram as well as the reproducibility of the R_f value on the conditions of the experiment. Only blueband round filters of the type TU MMP RSFSR Nr 304-53 were used for the investigations. A 1% solution of $K_4[Fe(CN)_6]$ served as developer. This way the R_f value for the

Card 2/3

The Determination of Copper Traces on Agricultural Products by Means of Paper Chromatography

SOV/75-13-4-17/29

copper ion was determined, using a solvent of 90 volume% of 80% ethanol and 10 volume% of 5n hydrochloric acid. (volume% = percent by volume). It was found that for amounts of 5-50γCu^{2+} a sufficiently close linear relation existed between the concentration of the copper ion and the width of the ring zone on the chromatogram developed. Based on this fact a method for the determination of small amounts of copper on agricultural products by means of paper chromatography was elaborated. All details of the procedure of this determination are given.
There are 3 tables and 11 references, 4 of which are Soviet.

ASSOCIATION: Kubanskiy sel'skokhozyaystvennyy institut, Krasnodar (Kuban' Agricultural Institute, Krasnodar)

SUBMITTED: March 12, 1957

1. Copper--Determination 2. Fungicides--Determination
3. Insecticides--Determination 4. Chromatographic analysis --Applications

Card 3/3

TSITOVICH, O.K.; TSITOVICH, I.K. (Krasnodar)

Apparatus for demineralization of water with ionites. Khim. v shkole 13 no.5:51-53 S-O '58. (MIRA 11:9)
(Water--Softening)

TSITOVICH, I.K.; CHILIKINA, Yu.S. (g.Krasnodar)

Ion-exchanging resins. Khim. v shkole 13 no.4:23-28 Jl-Ag '58.
(MIRA 11:6)

(Ion exchange) (Gums and resins)

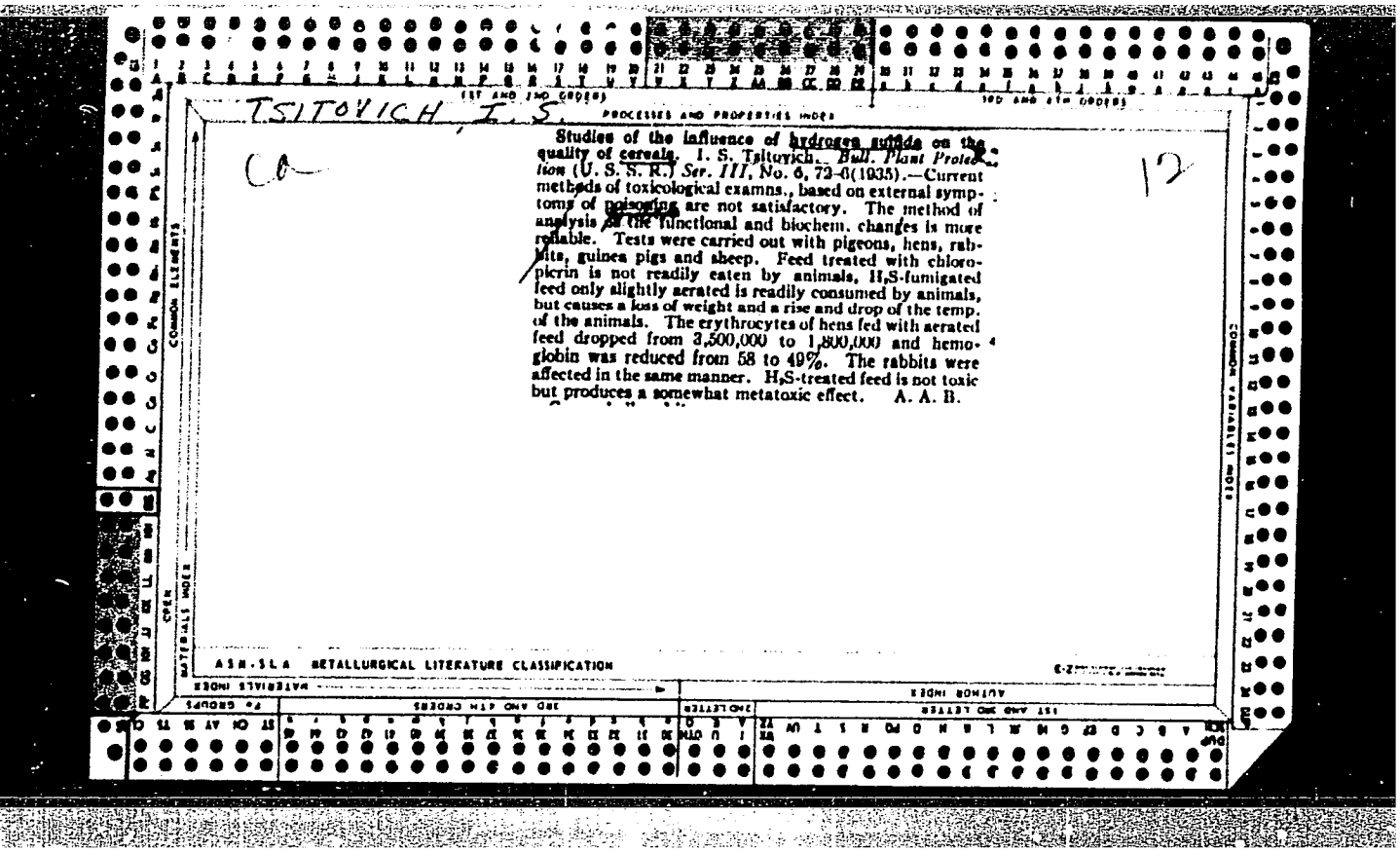
BOYKO, Vasiliy Fedorovich; TSITOVICH, Igar' Konstantinovich; CHELYSHKIN, Yu.G., red.; VESKOVA, Ye.I., tekhn.red.

[Quantitative and agricultural analysis] Kolichstvennyi i sel'skokhoziaistvennyi analiz. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1957. 222 p. (MIRA 10:12)
(Chemistry, Analytic--Quantitative) (Agricultural chemistry)

RYABCHIKOV, Dmitriy Ivanovich; TSITOVICH, Igor' Konstantinovich; VINOGRADOV, A.P., akademik, otv. red.; VOLYNETS, M.P., red.; DOROKHINA, I.N., tekhn. red.

[Ion exchange resins and their uses] Ionoobmennye smoly i ikh primenenie. Moskva, Izd-vo AN SSSR, 1962. 185 p. (MIRA 16:8)

(Ion exchange resins)



TSITOVICH, I. S.

Studies of the influence of hydrogen sulfide on the quality of cereals. I. S. Tsitovich. *Bull. Plant Protection* (U. S. S. R.) *Ser. III*, No. 6, 72-9(1935).—Current methods of toxicological examns., based on external symptoms of poisoning are not satisfactory. The method of analysis of the functional and biochem. changes is more reliable. Tests were carried out with pigeons, hens, rabbits, guinea pigs and sheep. Feed treated with chloropicrin is not readily eaten by animals, H_2S-fumigated feed only slightly aerated is readily consumed by animals, but causes a loss of weight and a rise and drop of the temp. of the animals. The erythrocytes of hens fed with aerated feed dropped from 3,500,000 to 1,800,000 and hemoglobin was reduced from 58 to 49%. The rabbits were affected in the same manner. H_2S-treated feed is not toxic but produces a somewhat metatoxic effect. A. A. B.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SOV/124-58-2-2320

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 2, p 110 (USSR)

AUTHOR: Tsitovich, I. S.

TITLE: Dynamic Loads in Automotive Transmissions (Dinamicheskiye nagruzki transmissii avtomobilya)

PERIODICAL: Mashinostroitel' Belorussii, Nr 2 (3), 1957, pp 34-44

ABSTRACT: Bibliographic entry

Card 1/1

TSITOVICH, I.S., kand.tekhn.nauk; VAVULO, V.A., inzh.

Defects of automobile gear teeth, which appear during operation, and their prevention. Mash.Bel. no.5:162-167 '58. (MIRA 12:11)

(Automobiles--Transmission devices)
(Mechanical wear)

TSITOVI-A, I.

USSR/Engineering - Gears

Card 1/1 : Pub. 12 - 3/16

Authors : Tsitovich, I. S. (Cand. Tech. Sci.)

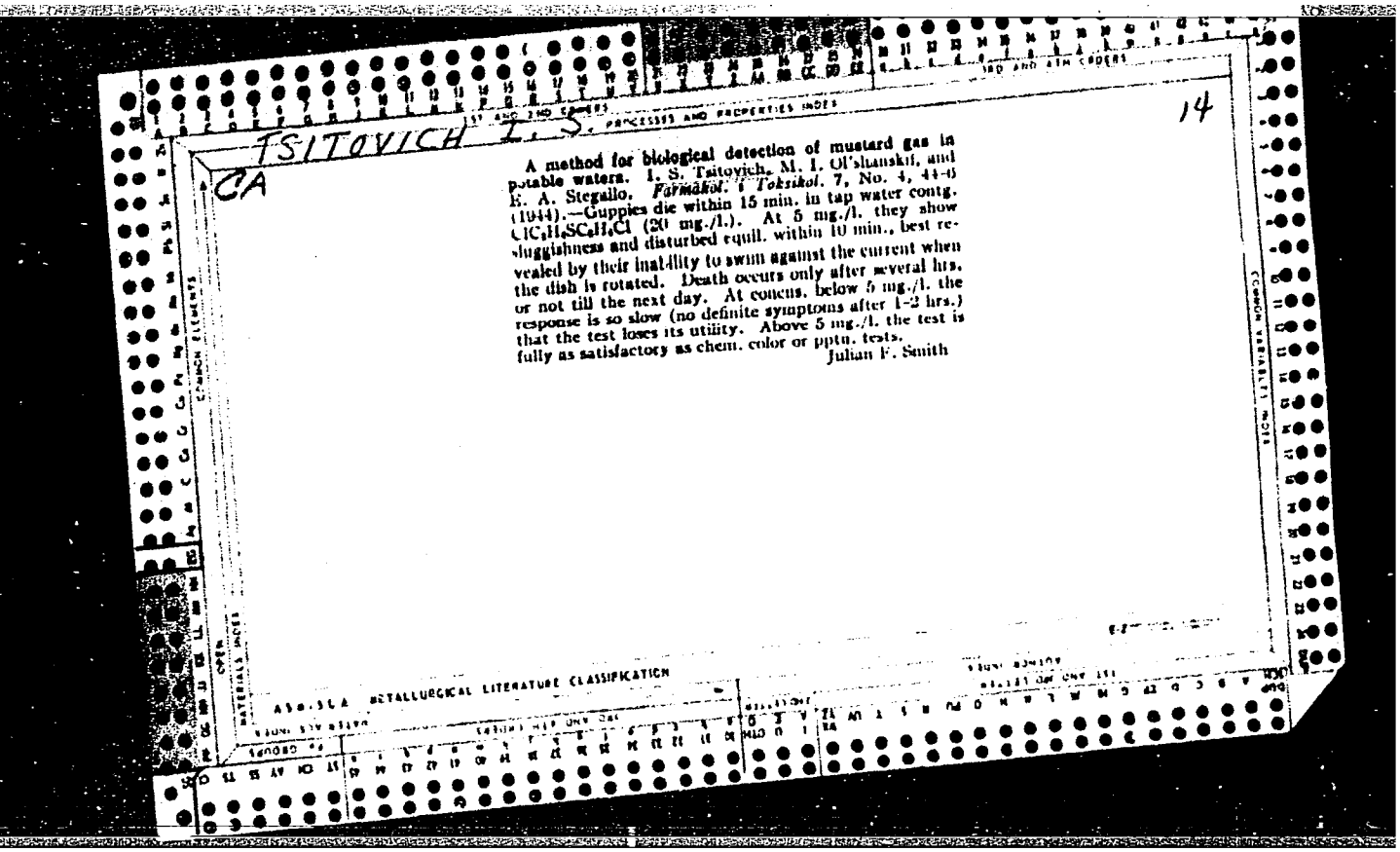
Title : The design and calculation of automobile gear wheels

Periodical : Avt. trakt. prom. 7, 11-17, July 1954

Abstract : The design and calculation of automobile pinion gears in accordance with methods developed by the Academy of Sciences of the USSR, and the Experimental Scientific Institute for Machine Construction, is presented. Mathematical tabulations for calculating gear modules, power coefficients, and the magnitude of gear teeth stress are given, together with the description of design methods. Four references (1947-1952). Tables; graphs.

Institution : ..... Belorussian Polytech. Inst. im. Stalin

Submitted : .....



TSITOVICH I. S.

14

CA

A method for biological detection of mustard gas in potable waters. I. S. Tsitovich, M. I. Ol'shanskii, and E. A. Stegailo. *Farmakol. i Toksikol.* 7, No. 4, 44-6 (1944).—Guppies die within 15 min. in tap water contg. $ClC_2H_4SC_2H_4Cl$ (20 mg./l.). At 5 mg./l. they show sluggishness and disturbed equil. within 10 min., best revealed by their inability to swim against the current when the dish is rotated. Death occurs only after several hrs. or not till the next day. At concns. below 5 mg./l. the response is so slow (no definite symptoms after 1-2 hrs.) that the test loses its utility. Above 5 mg./l. the test is fully as satisfactory as chem. color or pptn. tests.

Julian F. Smith

A5a-3L A METALLURGICAL LITERATURE CLASSIFICATION

TSITOVICH, Igor' Sergeyevich; VAVULO, Vasiliy Andreyevich; KHVAL', Boris Nikolayevich; GLINKIN, P.P., red.; MORGUNOVA, G.M., tekhn. red.

[Gear wheels of motor vehicles and tractors; design] Zubchatye kolesa avtomobilei i traktorov; proektirovanie i raschet. Minsk, Izd-vo M-va vysshego, srednego spetsial'nogo i professional'nogo obrazovaniia BSSR, 1962. 394 p. (MIRA 16:4)

(Motor vehicles--Transmission devices) (Gearing)

TSITOVICH, I.S.

Designing bevel gear wheels for driving axles of motortrucks.
Sbor.nauch.trud.Bel.politekh.inst. no.64:47-87 '59.
(MIRA 13:5)
(Motortrucks--Transmission devices)

TSITOVICH, I.S.; HLYUM, A.G., red.; PESINA, S.A., tekhred.

[Limit design of shafts, pinions and bearings for motor vehicles] Raschety po predel'nym sostoianiiam valov, shesteren i podshipnikov avtomobilia. Minsk, Redaktsionno-izd.otdel HPI im. I.V. Stalina, 1960. 120 p. (MIRA 14:1)
(Motor vehicles--Design)

KOKIN, G.M.; laureat Stalinskoy premii; TSITOVICH, I.S., red.; ALEKSANDROVICH, Kh., tekhn. red.

[New White-Russian motor vehicles] Novye belorusskie avtomobili. Minsk, Izd-vo AN BSSR, 1953. 38 p. (MIRA 16:7)

1. Glavnyy konstruktor Minskogo avtozavoda (for Kokin).
(White Russia--Motor vehicles)

VERKHOVININA, L.D., aspirant; TSITOVICH, K.G.; KATSENELENBOGEN, A.M.

Use of polypropylene yarn in the knit goods industry. Tekst.prom. 23 no.11:69-74 N '63. (MIRA 17:1)

1. Moskovskiy tekstil'nyy institut (for Verkhovinina). 2. Glavnyy inzh. Ivanteyevskoy fabriki imeni Dzerzhinskogo (for TSitovich). 3. Zamestitel' nachal'nika nauchno-issledovatel'skoy laboratorii Ivanteyevskoy fabriki imeni Dzerzhinskogo (for Katsenelenbogen).

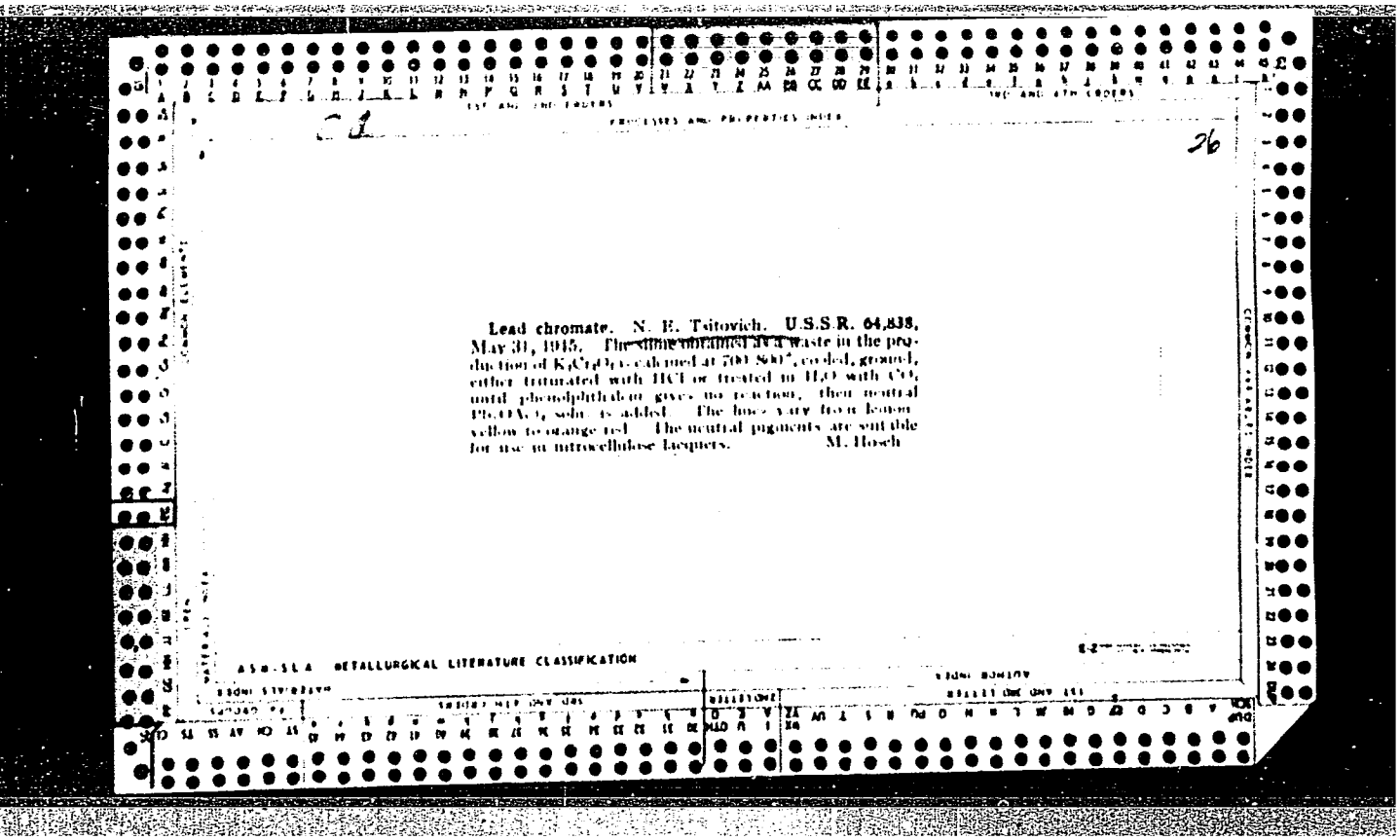
PLUNGYAN, T.M., starshiy nauchnyy sotrudnik; MEDVEDEV, M.F.; TSITOVICH, K.G.

Rhythmic conveyers for the final output operations in the manufacture of nylon hosiery. Tekst.prom. 20 no.10:69-72 O'60.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut trikotazhnoy promyshlennosti (for Plungyan). 2. Glavnyy inzh. Tushinskoy trikotazhnoy fabriki (for Medvedev). 3. Glavnyy inzh. Ivantsyevskoy trikotazhnoy fabriki imeni Dzerzhinskogo (for TSitovich). (Hosiery) (Assembly-line methods)

KEL'BERT, D.L.; TSITOVICH, N.A.

Efficient method of control of the bacterial contamination of cotton.
Sbor.nauch.-issl.rab.TTI no.12:101-103 '61. (MIRA 15:11)
(Cotton--Microbacteriology)



Lead chromate. N. E. Tsitovich. U.S.S.R. 64,838, May 31, 1945. The slime obtained as a waste in the production of $K_2Cr_2O_7$ is calcined at 700–800°, cooled, ground, either triturated with HCl or treated in H_2O with CO_2 until phenolphthalein gives no reaction, then neutral $Pb(OAc)_2$ soln. is added. The hues vary from lemon-yellow to orange-red. The neutral pigments are suitable for use in nitrocellulose lacquers. M. Hosch

TSITOVICH, N.G., inzh.; PCHELKIN, A.D., inzh.

Continuous concrete paver. Gidr. i mel. 10 no.11:20-23 N '58.
(MIRA 11:12)
(Pavements, Concrete)

SOV/99-58-11-3/9

AUTHOR: Tsitovich, N.G., Pchelkin, A.D., Engineers

TITLE: Continuous-Action Concrete Packing Machines (Betonoukladchiki nepreryvnogo deystviya)

PERIODICAL: Gidrotekhnika i melioratsiya, 1958, Nr 11, pp 20 - 23 (USSR)

ABSTRACT: The Uzbekskiy institut proyektirovaniya vodokhozyaystvennykh ob"yektov (Uzgiprovodkhoz) (The Uzbek Institute for the Planning of Hydraulic Projects) developed in 1958 a device for the mechanical lining of canals with concrete. Depending on the dimensions of the canals, 3 types were designed: 1) a mobile device for cementing small canals with perimeters up to 5-6 m; 2) a sliding sheathing for cementing slopes of big canals up to 5 m wide; 3) a mobile device for cementing the bottom of big canals with sections up to 5 m. The authors give detailed descriptions of these devices and their operating speeds. There are 3 photos.

Card 1/1

PODDUBNAYA-ARNOL'DI, Vera Alekseyevna; TSITSIN, N.V., akademik, otv. red.; ASTROV, A.V., red.

[General embryology of angiosperms] Obshchaia embriologiia pokrytosemennykh rastenii. Moskva, Izd-vo "Nauka," 1964. 481 p. (MIRA 17:7)

ZHUKOV, V.A., kand.tekhn.nauk dots.; KLIMENKO, V.L., inzh.; TSITOVICH, O.B., inzh.

Problem of heat exchange in pyrolizers and heaters with moving packed beds. Trudy LIEI no.25:121-130 '59. (MIRA 12:11)
(Heat exchangers)

LESOKHIN, I.G.; TSITOVICH, O.B.; BALABANOVICH, G.N.; VINNIKOV, L.I.

Analyzing the speed rate in the formation of a fluidized bed.
Trudy LTI no.59:83-94 '61. (MIRA 17:9)

TSITOVICH, O.B., inzhener; YEVSYUKOV, V.S., inzhener-ekonomist

Problems of the calculation of material and heat balance in gas producers and burners with fluidized bed. Trudy LIEI no.36:96-103 '61. (MIRA 15:1)

(Gas producers)
(Gas manufacture and works--Tables, calculations, etc.)

SAVCHENKOV, A.F., kand.ekonomicheskikh nauk, dotsent; MORILOV, M.F., doktor sel'skokhozyaystvennykh nauk; CHUPAROV, A.P., kand.sel'skokhozyaystvennykh nauk; TSITOVICH, O.B., inzhener-tekhnolog, khimik

Need in nitrogen fertilizers and their varieties in the northwestern part of the U.S.S.R. Trudy LIEI no.36:13-22 '61. (MIRA 15:1)
(Fertilizers and manures) (Nitrogen)

BRYZGALOVA, Ye.V., kand.ekonomicheskikh nauk; TSITOVICH, O.B., inzhener

Utilization of shale concentration wastes. Trudy LIEI no.36:121-125 '61. (MIRA 15:1)

(Shale)

ZHUKOV, V.A., kand.tekhn.nauk dots.; KLIMENKO, V.L., inzh.; TSITOVICH, O.B., inzh.

Selecting moving packed beds in regenerator-pyrolyzers. Trudy LIEI no.25:131-140 '59. (MIRA 12:11)
(Heat exchangers)

ZHUNKO, V.I., inzh.; TSITOVICH, O.B., inzh.; KLIMENKO, V.L., inzh.

Continuous gasification of oil shale in a gas stream. Trudy LIEI no.25:146-151 '59. (MIRA 12:11)
(Oil shales) (Gases)

TSITOVICH, O.K.; TSITOVICH, I.K. (Krasnodar)

Apparatus for demineralization of water with ionites. Khim. v shkole 13 no.5:51-53 S-O '58. (MIRA 11:9)
(Water--Softening)

DYMOV, M.G. [Dymov, M.H.], otv.red.; BURAK, P.Yu., red.; VOL'SKIY, V.G. [Vol's'kyi, V.H.], red.; ZDEORUK, I.A., red.; OVSYANNIKOV, V.B., red.; TSITOVICH, O.Ye., red.; DEMCHUK, M., red.izd-va; NEDOVIZ, S., tekhred.

[They have golden hands; story of Lvov Province corn growers who have exceeded the thousand centner mark] U nykh zoloti ruky; rozpovid' pro znatnykh kukurudzovodiv-tysiachnykiv L'vivshchyny. L'viv, Knyzhkovo-zhurnal'ne vyd-vo, 1958. 200 p. (MIRA 14:1)

(Lvov Province--Corn (Maize))

124-58-9-9506

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 9, p 7 (USSR)

AUTHORS: Savinov, G. V., Tsitovich, P. A.

TITLE: On a Linear Nonautonomous System (Ob odnoy lineynoy neavtonomnoy sisteme)

PERIODICAL: Vestn. Mosk. un-ta. Ser. matem., mekhan., astron., fiz., khimii, 1957, Nr 3, pp 9-12

ABSTRACT: The solution of the equation of an undamped harmonic oscillator with monotonously increasing frequency is found by Van der Pol's method. By changing to a nonuniformly rotating system of coordinates on the phase plane it becomes possible to solve the abbreviated Van der Pol formula for the case when the module of the derivative of the varying frequency is less than twice the module of the frequency itself at any given moment.

A. S. Alekseyev

1. Harmonic oscillators--Mathematical analysis
2. Mechanics--Theory

Card 1/1

OSITOVICH, P. A.

OSITOVICH, P. A. -- "Disturbed Movement of Gyroscopes." Sub 12 Jun 52, Sci Res Inst of Mechanics and Mathematics, Moscow State U (Dissertation for the Degree of Candidate in Physicomathematical Sciences).

SO: Vechernaya Moskva January-December 1952

TRANSLATION - W-29782, 12 Apr 54

Tsitovich, P.A.

124-11-12381

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr 11, p 8 (USSR)

AUTHOR: Tsitovich, P. A.

TITLE: On the Motion of a Mass Point Having a Variable Mass.
(O dvizhenii material'noy tochki peremennoy massy)

PERIODICAL: Dokl. AN USSR, 1957, Nr 2, pp 15 - 17

ABSTRACT: Analyzed is the motion of a mass point having a variable mass, assuming that the absolute velocity of the varying mass particles equals zero. For this case, assuming the presence of a force function, a first-order integral is found which differs from the energy integral through its use of the second power of the mass point instead of the first power.
M. I. Yefimov

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TSITOVICH, P.A.

SAVINOV, G.V.; TSITOVICH, P.A.

A linear nonautonomic system. Vest.Mosk.un.Ser.mat., mekh., astron., fiz., khim. 12 no.3:9-12 '57. (MIRA 11:3)

1.Kafedra prikladnoy mekhaniki Moskovskogo gosudarstvennogo universiteta.

(Vibration)

TSITOVICH, S., kand. tekhn. nauk, starshiy nauchnyy sotrudnik

Ballast water from tank vessels and their qualitative and quantitative characteristics. Mor. flot 23 no.9:17-19 S '63. (MIRA 16:11)

1. Gosudarstvennyy proyektno-konstruktorskiy i nauchno-issledovatel'skiy institut morskogo transporta.

TSITOVICH, Sergey Georgiyevich; MAKAROV, N.M., red. izd-va; TIMOFEYEV, L.F., tekhn. red.; KARPOVICH, R.I., tekhn. red.

[Gory-Goretskii Agricultural Institute, the first higher agricultural school in Russia, 1836-1864] Gorygoretskii zemledel'cheskii institut - pervaia v Rossii vysshaia sel'skokhoziaistvennaia shkola, 1836-1864. Gorki, Izd-vo Belorusskoi sel'khoz.akad., 1960. 271 p. (MIRA 15:1)

1. Gorygoretskiy zemledel'cheskiy institut (for TSitovich).
(Gorki (Mogilev Province))—Agricultural colleges)

POSTNIKOV, I.S.; BELYAYEVA, M.A.; TSITOVICH, S.I.

Horizontal primary clarifiers and activated sludge precipitation tanks. Sbor. nauch. rab. AKKH no.6:36-51 '61. (MIRA 15:3)
(Sewage--Purification)

TSITOVICH, S. I. Cand Tech Sci -- (diss) "Preliminary aeration of ~~sewage~~ [illegible] together with active excess silt." Mos, 1958. 18 pp (Acad of Econony im K. D. Pamfilov), 150 copies (KL, 52-58, 103)

TSITOVICH, S.I.

Preliminary aeration of sewage with excessive accumulation of mud.
Vod. i san. tekh. no.1:13-18 Ja '58. (MIRA 11:1)
(Sewage--Purification)

ACC NR: AT6036467 SOURCE CODE: UR/0000/66/000/000/0012/0013

AUTHOR: Agro, A. L.; Nilovskaya, N. T.; Taitovich, S. I. Bokovaya, M. M. Variamov, V. F.; Chernovich, I. L.

ORG: none

TITLE: Experimental investigation of the possibility of cultivating higher plants on a nutrient medium of biological mineralizers under conditions of a closed gas cycle (Paper presented at conference on problems of space medicine held in Moscow from 24-27 May 1966)

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 12-13

TOPIC TAGS: life support system, closed ecological system, plant physiology, photosynthesis, plant metabolism

ABSTRACT:

The creation of a closed cycle of substances for experimental ecological systems is unthinkable without a stage of recycling human metabolic wastes, in order to transform organic substances into elements for mineral feeding of lower and higher autotrophs.

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One of the possible and promising methods of mineralizing human metabolic wastes is to use aerobic oxidation of organic materials with the aid of biocenosis of microorganisms, carried out in a biological mineralization chamber. At the present time, the aeration tank (aerotank) as a biological mineralization chamber is highly developed from the point of view of both engineering and construction and is quite useful for conducting experiments with short closed cycles.

In these experiments (the very first), two linked but contradictory processes were utilized. The first process was the synthesis of organic compounds from inorganic ones using the energy of light (photosynthesis of higher plants). The second process was the biochemical oxidation of organic substances (mineralization of the urine and fecal mixture in the aeration chamber).

Higher plants (head cabbage) were grown for a period of twelve days in an open assimilation chamber on a urine-fecal liquid which had been mineralized biologically. After this, they were grown under conditions of a closed exchange of a gas-air mixture between the assimilation chamber and the aeration tank for periods of four and eleven days.

ACC NR: AT6036467

During the process of biological mineralization, a certain amount of CO_2 gas was extracted from the aeration tank and allowed to pass into the assimilation chamber with the higher plants. In turn, oxygen which had been produced by the plants passed into the aeration tank. These experiments with the "assimilation chamber-aeration tank" system made it possible to establish a practical gas exchange between higher plants and the biocenosis of mineralizing microorganisms. The experiments also established the possibility of using a mineralized urine-fecal liquid as a nutrient medium for higher plants. In the course of these experiments a somewhat lowered photosynthetic rate was observed. It is assumed that this can be explained by the action of some kind of gaseous micro-admixtures which are metabolites of plants and of activated sludge.

Experimentation with short closed cycles of the "assimilation chamber-aeration tank" type showed that they are practical for obtaining information necessary for the creation of closed ecological system.

[W.A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 3/3 egh

POSTNIKOV, Igor' Sergeyevich; TSITOVICH, Sergey Ivanovich; TUGUSHEVA, Markis Iosifovna; RACHEVSKAYA, M.I., red.izd-va; SHLIKHT, A.A., tekhn.red.

[Preliminary purification of liquid wastes with the use of activated sludge] Predvaritel'naia ochistka stochnoi zhidkosti metodom biokoaguliatsii. Pod obshchei red. I.S.Postnikova. Moskva, Izd-vo M-va kommun.khoz. RSFSR, 1958. 86 p. (MIRA 12:4)
(Sewage--Purification)

REZNIK, N.F.; AKHAUTOV, N.P.; [illegible]

Experience in the operation of a unit for the purification of ballast water. Transp. i khran. nefti pt. 6 no.2:18-21 '63. (MIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta Ministerstva putey soobshcheniya, Ventspilsskaya perevalochnaya neftebaza i Gosudarstvennyy institut po proyektirovaniyu morskikh portov i sudoremontnykh predpriyatiy Ministerstva morskogo flota SSSR.

REZNIK, N.F.; TSITOVICH, S.I.

Automatic sampler for petroleum polluted waters. Transp. i khran. nefti no. 3:25-27 '63. (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta Ministerstva putey soobshcheniya i Gosudarstvennyy proyektno-konstruktorskiy i nauchno-issledovatel'skiy institut morskogo transporta.

POSTNIKOV, I.S.; TSITOVICH, S.I.

Daily automatic sampling of waste waters. Vod. i san. tekh. no.4:29-30 Ap '57. (MLRA 10:6)

(Sewage--Analysis)

ACC NR: AT7011648 SOURCE CODE: UR/0000/66/000/000/0001/0007

AUTHOR: Yazdovskiy, V. I.; Tsitovich, S. I.; Agre, A. L.; Gusarov, B. G.; Sinyak, Yu. Ye.; Chizhov, S. V.

ORG: none

TITLE: Transformation of wastes in a closed ecological system

SOURCE: International Astronautical Congress. 17th, Madrid, 1966. Doklady. no. 10. 1966. O transformatsii produktov zhiznedeyatel'nosti cheloveka i biokompleksa pri osushchestvlenii krugovorota veshchestv v malykh zamknutykh prostranstvakh, 1-7

TOPIC TAGS: life support system, metabolic waste, closed ecology system

ABSTRACT:

Successful operation of life-support systems based on partial recycling of substances depends on mineralization of human wastes and other life-support system byproducts, such as refuse from the space greenhouse, garbage, etc. Biological, physical and chemical methods of mineralization can be used alone or in combination. Criteria for judging the efficiency of these methods include the completeness of mineralization, the degree of change in chemical composition and aggre-

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gate state of the products, the coefficient of return of substances to the cycle, the weight and dimensions of equipment, the expenditure of energy, and the toxicity of end products.

The high-temperature and catalytic oxidation methods are most suitable for mineralizing solid and dehydrated human waste and life-support system refuse. The high-temperature method is technologically simple, but requires a temperature of 700—800°C. However, it mineralizes nearly all wastes, producing ash and gaseous products (CO_2, sulfur oxides, etc.). Within a range of combustion regimes the mineral composition of the ash is fairly constant, although its physical and chemical properties may change. One disadvantage of the high-temperature method is the possibility of forming free nitrogen, which must be bound (with additional energy expenditure). It should be noted that some type of high-temperature mineralization must be included in a life-support system because this step burns up the end-products of other forms of processing. This method can be successfully used in partially closed systems.

The catalytic oxidation method of mineralization requires comparatively little energy and produces an acid solution useful for dissolving ash and treating nutrient media for autotrophs. Lower initial temperatures (200°C are required, and the ash formed by this mineralization process is more suitable for further processing. However, experimental conditions must be strictly controlled and long-acting, stable catalysts must be found. The catalytic oxidation method can be advantageously combined with the high-temperature method previously described. This combination can be used in partially closed systems, when the desired end-product is solutions of mineral salts.

The "pressure-cooking" method (oxidation of wastes in the liquid state) utilizes high pressure and high temperature and can be used to mineralize liquid human wastes, diluted urine-fecal mixtures and plant residue. This complicated method deserves more study because it produces a solution of mineral salts directly. Owing to the variety of organic substances subjected to mineralization, it is difficult to obtain a solution of constant composition. Experimental investigation of this self-sustaining exothermal process showed 90% minerali-

zation of urine-fecal and fecal mixtures. Unfortunately, the remaining unidentified organic substances are very toxic for plants and must undergo additional processing. Traces of hydrogen, saturated and unsaturated hydrocarbons, and ammonia are found in the vapor after mineralization. Furthermore, the high pressure (150 atm) and temperature (250—275°C) required make this method technologically difficult. A possible use for this method is high-temperature hydrolysis of urea, producing ammonia and nitric acid. More research is required to determine the place of the "pressure cooking" method in a complex life-support system.

An aerobic method was selected to demonstrate biological mineralization. Biological mineralization can be intensified by (1) increasing the total number of microbes by regenerating the activated sludge, (2) increasing oxygen utilization by prolonging contact of the mixture with air (without increasing the length of aeration), or (3) by using higher temperatures during cultivation of activated sludge. Long-term experiments were conducted with a concentrated (1:30) urine-fecal solution aerated for 4 hr, with the

following results: 85% mineralization of organic substances and 95% conversion of nitrogen-containing substances into nitrates.

Gaseous products of waste mineralization must be converted into solid or liquid form for use as plant nutrients. With the catalytic method of mineralizing gaseous substances, oxides of nitrogen and sulphur, CO_2, and water are obtained. Mineralization of a daily amount of solid and liquid human wastes produces as much as 3.0—4.0 g of free nitrogen, 0.5 g of hydrogen, 3.0 g of carbon monoxide, 7.0 g of ammonia, and as much as 5.0 g of saturated and unsaturated hydrocarbons. During this process, as much as 122 g of CO_2 can be formed and 60 g of oxygen expended. The end product, after mineralization and purification, must contain only nitrogen, oxygen, and CO_2.

Mineralization of human and plant wastes is closely connected with the regeneration, conditioning, and storage of water. Water sources are water-containing products of human metabolism and life-support system operation, a condensate of atmospheric moisture, and water of transpiration. A water-regeneration system weighs 20—

ACC NR: AT7011648

50 kg regardless of flight duration, while a water supply for three men on a 30-day spaceflight can weigh 495 kg. One man requires approximately 4 liters of water per day, of which 1200 ml is drinking water, 1000 ml is needed for food preparation (more for dehydrated food), and 1800 ml for hygienic needs. Sufficient water for these purposes can be supplied by atmospheric moisture, urine, water left from washing, water of transpiration from higher plants, and algal substrate. The most promising methods for regeneration of water from human metabolic wastes are catalytic oxidation, vacuum distillation, and lyophilization. Lyophilization or molecular drying utilizes the vacuum and low temperatures of space. Studies have shown that water can be purified with sorbents (including ion-exchangers) if organic substances are oxidized first and semipermeable membranes are used. A number of other methods can be used for regeneration of water—electrochemical methods, ultrasound, radiation, and ozonation. Hygienic and chemical properties of water regenerated by lyophilization, vacuum distillation and catalytic oxidation are listed. These data show the need for additional purification by sorbents in some cases.

Orig. art. has: 1 table. [ATD PRESS: 5098-F]

SUB CODE: 06 / SUBM DATE: none

Card 6/6

TSITOVICH, T.

Internnion conference on the exchange of experience. Okhr. truda i sots.strakh. no.5:77 N '58. (MIRA 12:1)

1. Tekhnicheskiy inspektor Azerbaydzhanskogo sovprofa.
(Industrial hygiene--Congresses)

TSITOVICH, T. A.: "Research on certain physico-synoptic conditions for the formation of the subfrontal portion of cloud systems of a warm front". Moscow, 1955. Main Administration of the Hydrometeorological Service, Council of Ministers USSR. (Dissertation for the Degree of Candidate of Geographical Sciences)

SO: Knizhnaya Letopis', No. 40, 1 Oct 55

Tsitovich, T.A.

3(7) Q7 PHASE I BOOK EXPLOITATION SOV/3030

Leningrad. Tsentral'naya aerologicheskaya observatoriya

Nekotoryye voprosy fiziki oblakov (Some Problems in Cloud Physics) Moscow, Gidrometeoizdat (otd.) 1959. 94 p. (Series: Its: Trudy, vyp. 30) 650 copies printed.

Sponsoring Agency: Glavnoye upravleniye gidrometeorologicheskoy sluzhby.

Ed. (title page): A.M. Borovikova; Ed. (inside book): M.I. Sorokina; Tech. Ed.: T. Zemtsova.

PURPOSE: This collection of articles is intended for meteorologists and geophysicists.

COVERAGE: This is a collection of seven articles on problems in cloud physics. All articles were written between 1955-1958 but their publication was withheld for technical reasons. Individual articles discuss the origin of the subfrontal section in warm front cloud systems, radar scattering by non-spherical particles, unipolar charges in aerosols and atmospheric electricity, and the conditions of

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ice crystal growth in the free atmosphere. A base line theodolite method for surveying clouds is described, and a compound for obtaining replicas of cloud elements discussed. References accompany individual articles.

TABLE OF CONTENTS:

Some Problems in Cloud Physics

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Kondrat'yev, N.N. The Method and Results of Base Line Theodolite Surveying of Clouds

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AVAILABLE: Library of Congress

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1-21-60

TSITOVICH, T.A.

Gravity wind. Trudy TSAO no.63:67-75 '65.

(MIRA 18:10)

TSITOVICH, T.A.

Fronts and cloud systems in the field of dew-point spread.
Trudy TSAO no.66:81-91 '65.

(MIRA 19:1)

TARASENKO, D.A.; TSITOVICH, T.A.

Data on the vertical structure of fronts. Trudy TSAO no.66:92-99 '65. (MIRA 19:1)

S/561/61/000/009/001/003
D207/D308

AUTHORS: Tsitovich, T.A., and Zagudayeva, R.A.

TITLE: Aerological characteristics of the structure of the atmosphere above Mirnyy

SOURCE: Problemy arktiki i antarktiki, no. 9, 1961, 37 - 44

TEXT: The authors summarize the material obtained from radiosonde records obtained above Mirnyy during the First Continental Antarctic Expedition (14 Feb. 1956 to 31 Jan. 1957). The atmospheric pressure during this period varied between 977 and 990 mb. The minimum values occurred in the coldest months (June to October) and were related to temperature drop and cyclonic circulation. In November the pressure began to rise and remained high in December-February. During this time the cyclonic activity was weaker and high pressure fronts were observed at all heights above Mirnyy. The fall of pressure to the lowest cold-month values occurred gradually during March-May. The average temperature at the ground surface was -0.4°C in summer and between -15 and -20°C in winter. The annual amplitude of the mean temperature variations decreased somewhat with height

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but it increased again in the stratosphere: the variations ranged up to 20 deg C at 10 km and up to 37°C at 16 km. This was related to the very low temperature in the stratosphere during July-August which fell to -70°C at 14 km and continued to drop with height. The temperature drop in this region is related to the rising air motion due to cyclonic formation over the Pole. This is supported by the values of the annual minimum temperature and by observed strong westerly winds with an average velocity of 40-50 m/sec at 10 km. In winter the tropopause height increased to 10.5 km and the stratosphere temperature usually decreased with height. The summer conditions reflected the predominant anticyclonic circulation over Severnyy: the wind velocity was lower during this season at all heights, except at 7-9 km below the tropopause where jet streams were observed and the wind velocity did not drop. Temperature was higher at all heights in summer. Near the ground strong gradient winds (reaching hurricane strength) were observed and equally strong cyclonic easterlies which were replaced in summer by weaker (5-9 m/sec) easterlies. In summer the gradient wind and the inversion at low heights appeared only after sunset (when the slopes become cooler). The thick (up to 2-3 km) inversions at low heights (formed in win-

Aerological characteristics of the ... S/561/61/000/009/001/003
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ter by merging of radiation and anticyclonic inversions) were not observed at all in summer.

SUBMITTED: August 6, 1959

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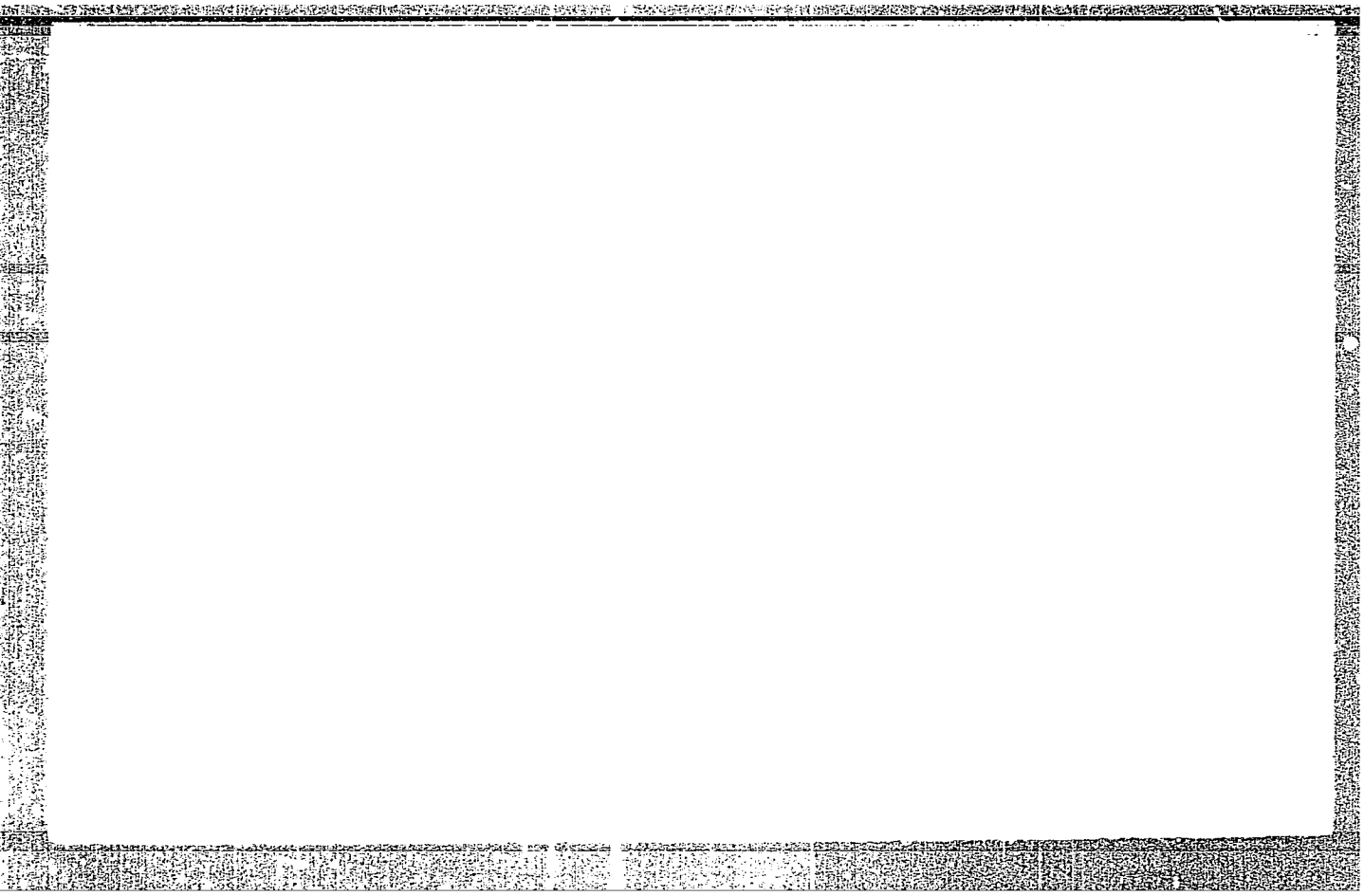

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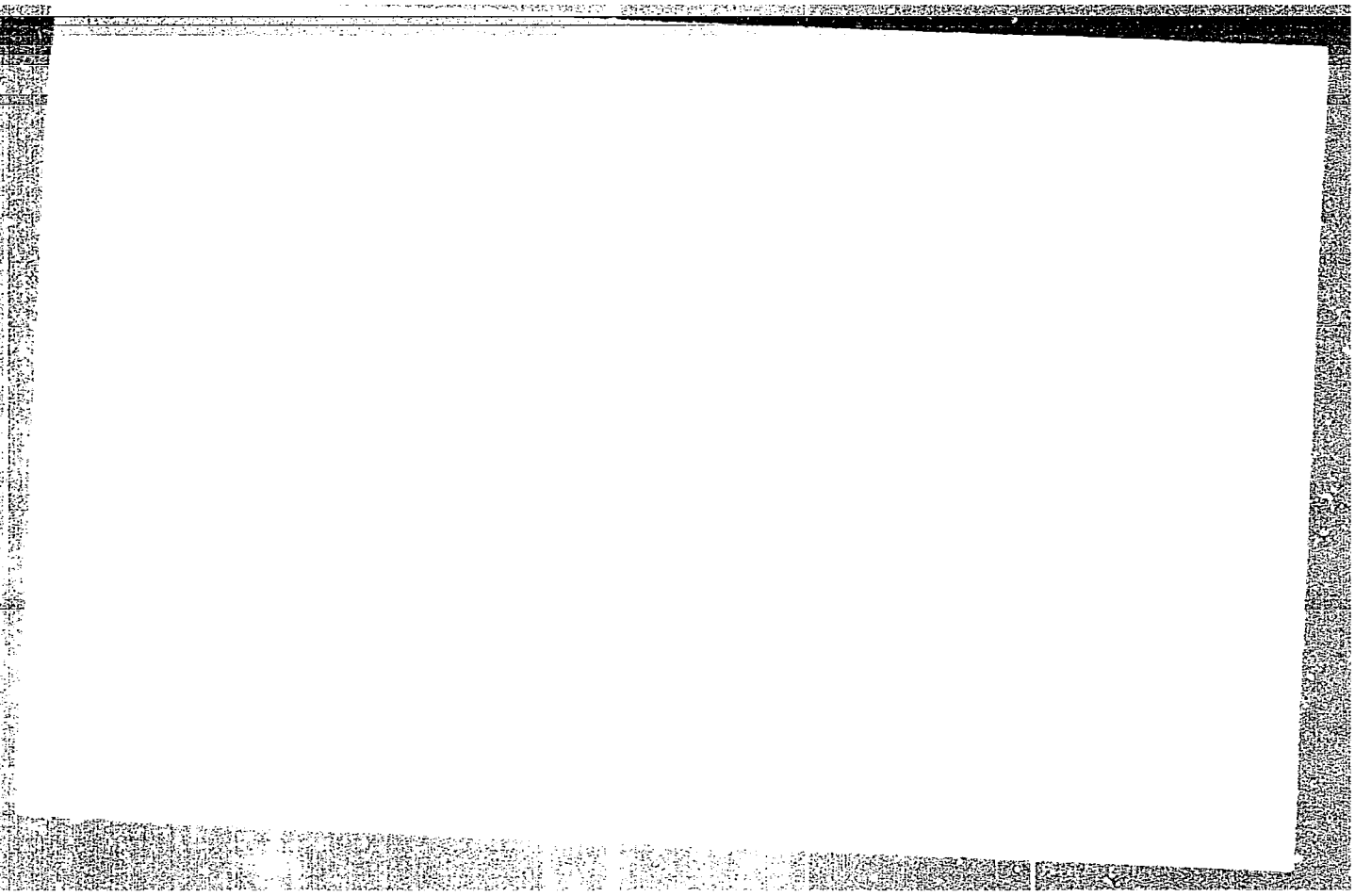

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TSITOVICH, T.A.

Glacier wind in the Mirnyy region. Trudy TSAO no.41:62-66 '62.
(MIRA 16:10)

L 38211-66 EWT(1)/FCC GW

ACC NR: AT6006564 SOURCE CODE: UR/2789/65/000/068/0067/0075

28
B+1

AUTHOR: Tsitovich, T. A.

ORG: none

TITLE: The problem of the run-off wind

SOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy, no. 68, 1965. Aviatsionnaya meteorologiya i aerosinopticheskiye issledovaniya (Aviation meteorology and aerosynoptic research), 67-75

TOPIC TAGS: antarctic climate, weather station, wind, wind direction, wind velocity, wind gradient, cyclone

ABSTRACT: The author notes that the wind regime due to the overall circulation of the atmosphere near the Antarctic slope is to a considerable degree disrupted by the imposition of run-off circulation on the air currents. This run-off circulation is known to be linked to an upsetting of the statistical balance of the atmosphere near the snow slope, the temperature of which is significantly lower than that of the free atmosphere at comparable altitudes. In the present article an attempt is made at an approximate estimation of the free atmosphere-slope temperature difference on the basis of factual observations. The temperature of the free atmosphere was determined by radiosonde readings at Mirnyy and the air temperature near the slope was read at the Pionerskaya weather station (2700 meters).

Card 1/2 UDC: 551.553.12

L 38211-66

ACC NR: AT6006564

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The angle of declination of the wind vector from the isobar as a function of the horizontal baric gradient during 1958 is analyzed. It is shown that the run-off circulation in a low-gradient field cannot give rise to high wind velocities. The summer increase at the foot of the slope due to the run-off circulation is 4—5 m/sec. As the horizontal baric gradient increases, the role of run-off circulation becomes more important. Depending on the respective location of the forces generating the run-off circulation and the horizontal baric gradient, a powerful cyclonic flow may change its direction. Thus, with the baric gradient running from SE to NW, when its direction coincides with the prevailing direction of the run-off wind, the deviation of the wind vector from the isobar in the case of very deep cyclones with velocities of 15—30 m/sec may be as much as 50—90°. So significant a deviation is explainable by the formation of a resultant wind velocity differing from the cyclonic velocity, as the result of the vector addition of the baric gradient force and the forces which form the run-off circulation, with the run-off component of the wind in this case increasing considerably. When the horizontal baric gradient is located at a right angle to the resultant force forming the run-off wind, there is no interaction between them and the cyclonic flow moves downward along the slope in an almost isobaric fashion. Deviation of the wind vector from the isobar as a result of the interaction of the baric gradient with the forces giving rise to the run-off wind intensifies the influx of cold air into the cyclonic region in the surface layer of the atmosphere and leads to a deepening and sharpening of the cyclonic disturbances blowing toward the Antarctic coasts from the lower latitudes. Orig. art. has: 2 figures and 4 tables.

Card 2/2 SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 000/

TSITOVICH,V.N.

Ways of lowering the cost of cement. TSement 21 no.2:18-20 Mr-Ap '55. (MLRA 8:8)
(Cement industries) (Cement prices)

L 24369-66 EWT(1)/FCC GW

ACC NR: AT6005155 SOURCE CODE: UR/2789/65/000/066/0092/0099 41

AUTHOR: Tarasenko, D.A.; Tsitovich, T.A. 8+1

ORG: Central Aerolcgical Observatory (Tsentral'naya aerologicheskaya observatoriya)

TITLE: Data on the vertical structure of fronts 12

SOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy, no. 66, 1965. Aerosinopticheskiye i aerologicheskiye issledovaniya (Aerosynoptic and aerological research), 92-99

TOPIC TAGS: atmospheric front, meteorology, atmospheric sounding, atmospheric probe, wind, atmospheric temperature, cyclone

ABSTRACT: The vertical structure of fronts in a temperature field, wind, and cloudiness were studied by the construction and analysis of time and space vertical profiles of the atmosphere on the basis of data from radio wind and aerial sounding. Synoptic and baric topography maps were used. Practical examples are used to show the cases of evolution of the frontal surfaces in various parts of a trough. The structure of fronts in high occluded cyclones is studied using data on two cyclones, one over northern Siberia and the 2

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ACC NR: AT6005155

other over Kamchatka, in March, 1963. An example is studied of an upper front in the vicinity of the tropopause. Preliminary statistical characteristics are given and discussed for a vertical structure of fronts and cyclonic formations. The front structure of cyclonic formations is found to be complex. Vertically, as a rule, several fronts were observed over one point. The thickness of these layers, however, was insignificant and was often characterized by inversion and isothermy. The latter was also observed in high fronts. It is noted in conclusion that the study confirms the diversity of front systems over the middle latitudes, the complexity of their structure, and variability in space and time under the influence of many factors. At the same time, it is becoming obvious that the existing network of temperature-wind sounding and the frequency of observations at every 6 hrs is absolutely insufficient for the study of the processes in the frontal regions. A 1 to 2-hr interval between soundings and special aerial sounding is deemed necessary. Orig. art. has: 3 tables and 3 figures.

SUB CODE: 04 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 001

Card 2/2

15-57-4-4634

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 4, p 93 (USSR)

AUTHORS: Sharay, V. N., Tsitovich, V. V.

TITLE: The Mineralogy of Clays From the Blue and Laminarites Beds in the Lower Cambrian of the Belorussian SSR (O mineralogicheskom sostave glin iz gorizontov sinikh i laminaritovykh sloyev nizhnego kembriya BSSR)

PERIODICAL: Uch. zap. Belorus. un-t, 1956, Nr 28, pp 49-78.

APSTRACT: More than 20 mineral species were discovered when studying samples of the blue and Laminarites clays. The clays consist principally of minerals of the hydromica type in various stages of alteration to beidellite. The hydromicas are considered to be syngenetic and diagenetic. Kaolinite as an admixture both in the coarse fraction and in the colloidal-dispersed part is due to secondary processes. The diagenetic minerals in the rocks are pyrite, siderite, and less

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The Mineralogy of Clays From the Blue and Laminarites (Cont.)

abundant ferruginous dolomite (the association with organic accumulations points to a reducing environment during formation of the clay sediments). The fragmental minerals, forming the sandy and silty fraction of the rock, are quartz, feldspar, mica, chlorite, glauconite, and almandite garnet. There is no difference in the composition between the blue and the Laminarites clays.

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L. P. Ts.

GINDIN, Ye.Z.; LEYKIN, G.A.; LOZINSKIY, A.M.; LUR'YE, M.A.; MASEVICH, A.G.; SEVERNAYA, O.A.; SEMTSOVA, Yu.Ye.; SLOVOKHOTOVA, N.P.; TOL'SKAYA, V.A.; TSITOVICH, V.V.

Brief report of the Astronomical Council of the Academy of Sciences of the U.S.S.R. on visual and photographic observations of artifical earth satellites in 1957-1959. Biul. sta. opt. nabl. isk. sput. Zem. no. 6:1-33 '60. (MIRA 14:2)
(Artificial satellites--Tracking)

SHARAY, V.N., kand.tekhn.nauk (Minsk); TSITOVICH, V.V. (Minsk)

Mineralogical composition of refractory clays from the "Gorodok" deposits. Sbor. nauch. trud. Bel. politekh. inst. no.86:16-26 '60. (MIRA 13:10)

(Fire clay)

MILOVANOV, V.K., akad.; PARSHUTIN, G.V., doktor biol. nauk; SOKOLOVSKAYA, I.I., doktor biol. nauk; OZHIN, F.V.; TSITOVICH, Ye.V.; TRUBKIN,G.D., red.; CHUBENKO,N.S., red.; TSVETKOV, I.V., red.; YERZINA,Z.K., red.; MESHCHANKINA, A.B., red.; SAYTANIDI, L.D., tekhn. red.

[Album on the artificial insemination of livestock] Al'bom po iskusstvennomu osemeneniiu sel'skokhoziaistvennykh zhivotnykh. Moskva, Izd-vo M-va sel'.khoz. RSFSR, 1960. 134 p. (MIRA 14:10)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye plemennogo dela i plemsovkhozov.
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TSITOVICH, Ye.Ia.

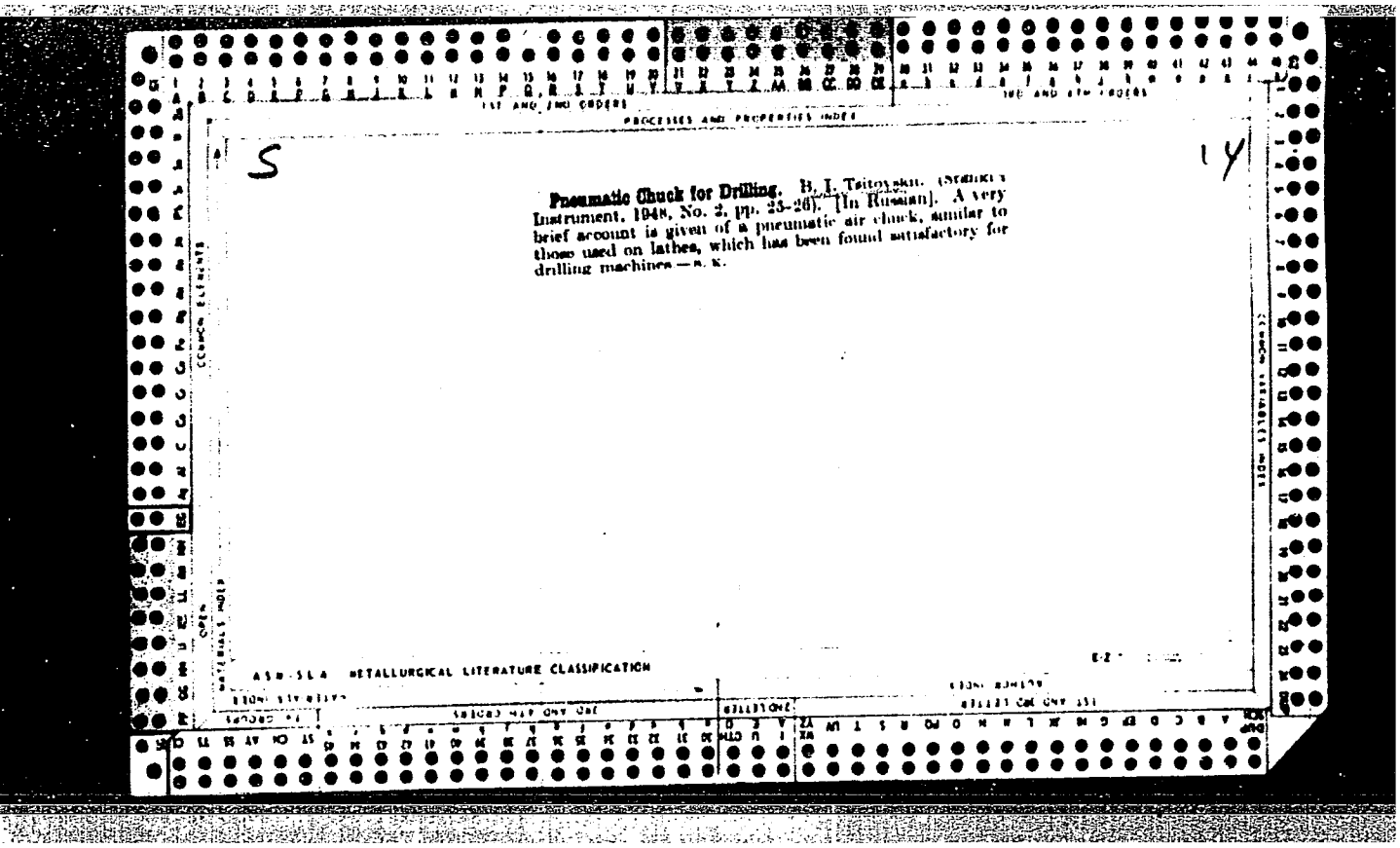
Achievements of Lvov Province collective farms in growing corn. Zemledelie 6 no.11:29-31 N '58. (MIRA 11:11)

1. Zamestitel' nachal'nika L'vovskogo oblastnogo upravleniya sel'skogo khozyaystva.
(Lvov Province--Collective farms)

TSITOVSKAYA, S.

36453. TSITOVSKAYA, S., KOVARSKIY, M., KOROLEVICH, M., I YERKHOVA, V.
KAriyes I Beremennost'.-Avt: M. Kovarskiy, S. Tsitovskaya, M. Korolevich I V. Yerkhova. Stomatologiya, 1949, No. 4, S. 25-28.

SO: Letopis' Zhurnal'nykh Statey, Vol. 49, Moskva 1949



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14

Pneumatic Chuck for Drilling. B. I. Teitoyskii. (Stanki i Instrument, 1948, No. 2, Pp. 25-26). [In Russian]. A very brief account is given of a pneumatic air chuck, similar to those used on lathes, which has been found satisfactory for drilling machines.—R. K.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MASLENNIKOV, I.M.; TSITOVSKIY, B.I.

High production pneumatic devices. Avt.trakt.prom. no.11:19-24 N '53. (MLRA 6:11)

1. Moskovskiy avtozavod im. Stalina. (Pneumatic tools)

METELITSA, A.V.; TSITOVSKIY, B.I.

Graphic representation of the successive operation of pneumatic drives and control equipment. Avt.prom. 29 no.1:39 Ja '63. (MIRA 16:1)

1. Moskovskiy avtozavod imeni Likhacheva.
(Pneumatic control)

MOROZOV, A.I.; TSITOVSKIY, B.I., inzh., retsenzent; YELIZAVETIN, M.A., kand. tekhn. nauk, red.

[Using pneumatic devices for the automation of technological processes in the machinery industry] Primenenie pnevmaticheskikh ustroistv dlia avtomatizatsii v mashinostroenii. Moskva, Mashinostroenie, 1965. 138 p. (MIRA 18:2)

TSITOVSKIY, I.

Turnover of goods with and without containers. Sov.torg. 36 no.12:48-49 D '62. (MIRA 16:1)

1. Nachal'nik planovo-finansovogo otdela Upravleniya torgovli prodovol'stvennymi tovarami Glavnogo upravleniya torgovley Moskovskogo gorodskogo ispolnitel'nogo komiteta Moskovskogo gorodskogo soveta deputatov trudyashchikhsya.
(Glass containers)
(Moscow--Retail trade--Accounting)

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25980
S/539/60/000/031/013/014
E194/E135

AUTHORS: Starokadomskaya, Ye.L., Tsitovskiy, I.L., and Klepikova, E.N.

TITLE: An investigation of materials for high-temperature heaters of hot-cathodes

PERIODICAL: Moscow. Khimiko-tekhnologicheskiy institut. Trudy, No.31, 1960. Issledovaniya v oblasti khimii i tekhnologii elektrovakuumnykh materialov. pp. 84-91

TEXT: The development of hot cathodes with operating temperatures of 1300-1500 °C has led to a demand for insulating materials for operating temperatures of 1600-1800 °C. It has accordingly become necessary to measure the high temperature electrical conductivity of certain high melting point oxides, which often have semiconducting properties at high temperatures. The resistance was measured by passing current through the specimen in series with a standard wire wound resistance of 1 megohm and measuring the corresponding potential drops on a potentiometer. The current carrying and measuring electrodes were inserted into the material for test whilst still in powder form. The samples